

## Nanoscale Infrared (IR) Spectroscopy and Imaging – When AFM meets IR –

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During this online workshop we will introduce the photothermal AFM-IR technique, which allows to perform chemical analysis with nanoscale resolution (<10 nm) on a wide range of different materials.

Starting with a theoretical introduction into the basics of the technique, this session will show how Photothermal AFM-IR is performed and operated in real-time with our nanoIR3-s setup installed at our demo facility in Karlsruhe, Germany. We will investigate a typical polymer blend sample by measuring locally nanoscale IR spectra and IR chemical images at defined wavenumbers with high resolution.

This workshop benefits anyone interested in nanoscale characterization of chemical and physical properties in different application fields, ranging from polymers, microelectronics, life science to material research.

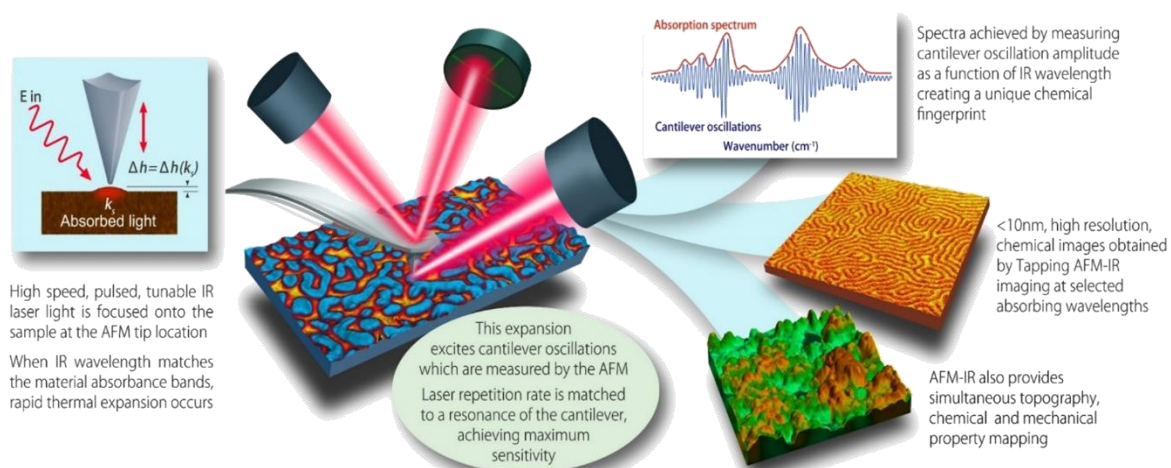


Figure 1: Experimental setup of resonance enhanced and Tapping AFM-IR.

### References:

[1]: A. Dazzi and C.B. Prater, Chem. Rev., 2016, 117, 5146-5173